

# Claims

- [c1] A multilayer ultra white nonwoven wipe material comprising
- (A) cellulose pulp having a whiteness greater than about 90;
  - (B) bicomponent fibers; and
  - (C) latex binder;
- wherein the bicomponent fibers comprise a core comprising polyester, a sheath comprising polyethylene, an optical brightener, and a delustrant; and wherein the latex binder is applied to the outer layers; and wherein the wipe has an AOV greater than or equal to about 75.
- [c2] The material of claim 1, wherein the material has a brightness of about 80 or greater.
- [c3] The material of claim 1, wherein the material has an opacity of about 55 percent or greater.
- [c4] The material of claim 1, wherein the cellulose pulp is a natural fiber, a synthetic fiber or a mixture thereof.
- [c5] The material of claim 1, wherein the pulp is one or more cellulose pulp fibers, one or more synthetic fibers, or a mixture thereof.

- [c6] The material of claim 1, wherein the pulp has a brightness of about 85 or greater.
- [c7] The material of claim 1, wherein the bicomponent fiber contains a delustrant.
- [c8] The material of claim 1, wherein the delustrant is titanium dioxide.
- [c9] The material of claim 1, wherein the bicomponent fiber contains an optical brightener.
- [c10] The material of claim 1, wherein the delustrant is in the sheath of the bicomponent fiber.
- [c11] The material of claim 1, wherein the delustrant is in the core of the bicomponent fiber.
- [c12] The material of claim 1, wherein the optical brightener is in the sheath of the bicomponent fiber.
- [c13] The material of claim 1, wherein the optical brightener is in the core of the bicomponent fiber.
- [c14] The material of claim 1, wherein the optical brightener is a bis(benzoxazoly) stilbene.
- [c15] The material of claim 1 further comprising two or more distinct strata where the composition of any one stratum

is different from at least one adjacent stratum.

- [c16] The material of claim 15, wherein the material has two outer strata and one or more inner strata and the bulk fiber of the two outer strata has a brightness of about 85 or greater.
- [c17] The material of claim 15, wherein the material has two outer strata and one or more inner strata and the weight percent bicomponent fiber of the inner stratum or strata is greater than the weight percent bicomponent fiber in the outer strata.
- [c18] The material of claim 1, wherein the material has been produced by an airlaid process.
- [c19] The material of claim 1 in the form of a wipe, mop, diaper, feminine hygiene product, incontinent device or surgical drape.
- [c20] An ultra white nonwoven wipe material having a basis weight of from about 40 gsm to about 100 gsm and a density of from about 0.03 to about 0.15 g/cc comprising:
  - (A) from about 57 to about 90 weight percent of a bulk fiber,
  - (B) optionally, from about 1 to about 8 weight percent of an emulsion polymer binder, and

(C)from about 5 to about 35 weight percent bicomponent fiber, and  
where the material has an AOV of about 75 or greater.

[c21] An ultra white nonwoven material having a basis weight of from about 25 gsm to about 250 gsm and a density of from about 0.03 to about 0.15 g/cc comprising:

(A)from about 57 to about 90 weight percent of a bulk fiber,

(B)optionally, from about 1 to about 8 weight percent of an emulsion polymer binder, and

(C)from about 5 to about 35 weight percent bicomponent fiber

where the material has an AOV of about 75 or greater.

[c22] The material of claim 20 or claim 21, wherein the material has a brightness of about 80 or greater.

[c23] The material of claim 22, wherein the material has an opacity of about 55 percent or greater.

[c24] The material of claim 22, wherein the bulk fiber is a natural fiber, a synthetic fiber or a mixture thereof.

[c25] The material of claim 22, wherein the bulk fiber is one or more cellulose pulp fibers, one or more synthetic fibers, or a mixture thereof.

- [c26] The material of claim 22, wherein the bulk fiber has a brightness of about 85 or greater.
- [c27] The material of claim 22, wherein the bicomponent fiber contains a delustrant.
- [c28] The material of claim 22, wherein the delustrant is titanium dioxide.
- [c29] The material of claim 22, wherein the bicomponent fiber contains an optical brightener.
- [c30] The material of claim 22, wherein the delustrant is in the sheath of the bicomponent fiber.
- [c31] The material of claim 22, wherein the delustrant is in the core of the bicomponent fiber.
- [c32] The material of claim 22, wherein the optical brightener is in the sheath of the bicomponent fiber.
- [c33] The material of claim 22, wherein the optical brightener is in the core of the bicomponent fiber.
- [c34] The material of claim 22, wherein the optical brightener is a bis(benzoxazolyl) stilbene.
- [c35] The material of claim 22, wherein the material has two or more distinct strata where the composition of any one stratum is different from at least one adjacent stratum.

- [c36] The material of claim 35, wherein the material has two outer strata and one or more inner strata and the bulk fiber of the two outer strata has a brightness of about 85 or greater.
- [c37] The material of claim 35, wherein the material has two outer strata and one or more inner strata and the weight percent bicomponent fiber of the inner stratum or strata is greater than the weight percent bicomponent fiber in the outer strata.
- [c38] The material of claim 22, wherein the material has been produced by an airlaid process.
- [c39] The material of claim 22 in the form of a wipe, mop, diaper, feminine hygiene product, incontinent device or surgical drape.
- [c40] The material of claim 1, 2, or 22, wherein the material has an aesthetic optical value of about 75 or greater.
- [c41] A process for the production of a wipe material of claim 20 or a nonwoven material of claim 21 comprising air-laying from about 57 to about 90 weight percent of a bulk fiber, and from about 5 to about 35 weight percent bicomponent fiber to form material with one or more strata and where the material has a whiteness L of about

90 or greater.

- [c42] A bicomponent fiber comprising: a core comprising polyester;  
a sheath comprising polyethylene, an optical brightener in an amount of from about 100 to about 400 ppm by weight of the sheath, and a delustrant in an amount of from about 0.2 percent by weight to about 0.4 percent by weight of the sheath component.
- [c43] The bicomponent fiber of claim 42, wherein the optical brightener is a bis(benzoazolyl) stilbene and the delustrant is titanium dioxide.
- [c44] The bicomponent fiber of claim 42 or 43, wherein the fiber has a brightness of about 98 or greater.
- [c45] The bicomponent fiber of claim 42, wherein the fiber has a whiteness value ( $L^*$ ) of about 90 or greater, a redness/greenness value ( $a^*$ ) of about 3.2 or greater, and a blueness/yellowness value ( $b^*$ ) of about -10 or less.